

REMARKS

Reconsideration of this application, as amended, is respectfully requested.

Claims 1-5 and 9-16 are pending. Claims 1-5 and 9-16 stand rejected.

Claims 1, 5, 9, 15 and 16 have been amended. Claims 4, 12, and 13 have been cancelled.

Claims 17 – 20 have been added. Support for the amendments is found in the specification, the drawings, and in the claims as originally filed. Applicants submit that the amendments do not add new matter.

Rejections Under 35 U.S.C. § 103(a)

Claims 1-5 and 9-16 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,574,739 of Kung et al. (“Kung”), in view of U.S. Patent No. 6,684,341 of Malcolm et al. (“Malcolm”).

The Examiner has rejected claims 1-5 and 9-16 under 35 U.S.C. § 103 as being unpatentable over Kung in view of Malcolm. The Examiner has stated that

As per claim 1, Kung teaches a method comprising: monitoring processor utilization of a computer system having a processor (fig. 1; col. 2, lines 46-51, circuit 50 monitors perceived processing load of CPU 10), the processor having a plurality of performance levels (fig. 2; col. 4, lines 59-col. 5, line 10, bands 62-68); and automatically transitioning the processor to a higher performance level if it is determined that the processor utilization has increased above a switch-up level (fig. 2; col. 56, lines 10-37, CPU operating frequency and voltage are adjusted when perceived processing load increases above a threshold level).

(p. 2, Office Action 10/14/04)

Applicants respectfully submit, however, that new claim 1 is not obvious under 35 U.S.C. § 103 in view of Kung and Malcolm. Amended claim 1 includes the following limitations.

A method comprising:
monitoring processor utilization of a computer system having a processor, the processor having a plurality of performance levels;
automatically transitioning the processor to a higher performance level if it is determined that the processor utilization has remained above a switch-up level for a first specified time; and

automatically transitioning the processor to a higher performance level if it is determined that the processor utilization has remained above a switch-up level for a first specified time; and
automatically transitioning the processor to a next lower performance level, if any, if it is determined that the processor utilization has remained below a switch-down level for a second specified time.

(Amended claim 1) (emphasis added).

Claim 1, as amended, includes the limitation of automatically transitioning the processor to a next lower performance level, if any, if it is determined that the processor utilization has remained below a switch-down level for a specified time (as claimed in canceled claim 4).

Claim 1 also includes the limitation of the specified time of processor utilization above a switch-up level prior to transitioning to a higher performance level being different than the specified time of processor utilization below a switch-down level prior to transitioning to a lower performance level. These limitations allow for a fast up/slow down (FUSD) transitioning policy or a slow up/fast down (SUFD) transitioning policy as described in the specification at page 8 and claimed in new claims 17 and 18, respectively. The ability to provide either a FUSD transitioning policy or a SUFD transitioning policy is highly desirable in addressing circumstances with certain processor utilization curves.

In contrast, neither Kung nor Malcolm, alone or in combination disclose these limitations or render such limitations obvious. Although Malcolm does disclose a “lag time” for transitioning, this lag time is to avoid transitioning due to utilization spikes. Malcolm does not disclose a different time for transitioning up and down.

For these reasons applicants respectfully submit that claim 1 is not rendered obvious by Kung in view of Malcolm. Given that claims 2, 3, 5, 17, and 18 depend from claim 1, applicants submit that claims 2, 3, 5, 17, and 18 are not obvious under § 103 in view Kung and Malcolm. Further, given that claim 9 includes similar limitations and that claims 10, 11, 14 – 16, 19 and

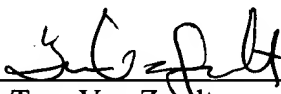
20, depend from claim 9, applicants submit that claims 10, 11, 14 – 16, 19 and 20 are, likewise, not obvious under § 103 in view of the references cited by the Examiner.

It is respectfully submitted that in view of the amendments and arguments set forth herein, the applicable rejections and objections have been overcome. If there are any additional charges, please charge Deposit Account No. 02-2666 for any fee deficiency that may be due.

Respectfully submitted,

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